

REMARKS

Favorable consideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1-62 are pending in the application, with Claims 1, 6, 18, 24, 37, 38, 40, 41, 43, 44, 46, 47, 49 and 50 amended by the present amendment.

In the outstanding Office Action; Claims 1-5 were objected to; Claims 6-8 were rejected under 35 U.S.C. 112, second paragraph; Claims 6-8 were rejected under 35 U.S.C. 103(a) as being unpatentable over Ohiso et al. (U.S. Patent No. 5,864,575, hereinafter Ohiso); Claims 9-62 remain withdrawn from consideration; and Claims 1-5 were indicated as containing allowable subject matter.

Applicants gratefully acknowledge the indication of the allowable subject matter.

Claims 1, 18, 37, 40, 43, 46, and 49 are amended to correct the informality noted in the Official Action. In response to the rejection under 35 U.S.C. 112, second paragraph, Claims 6, 24, 38, 41, 44, 47, and 50 are amended to recite features recited in allowed Claim 1 so as to more clearly describe and distinctly claim Applicants' inventions. Support for these amendments is found in Applicants' originally filed specification. No new matter is added.

Amended Claim 6 is directed to a distributed Bragg reflector, comprising: a) a first semiconductor layer having a first refractive index; and b) a second semiconductor layer having a second refractive index. The first refractive index is larger than the second refractive index, and the first and second semiconductor layers are stacked alternately. The Bragg reflector also includes a material layer having a third refractive index intermediate between the first and second refractive indices. The distributed Bragg reflector being tuned to a wavelength of $1.1 \mu\text{m}$ or longer. The material layer has a thickness smaller than or equal to $(50\lambda-15)$ (nm) where λ is a tuned wavelength (nm) of the distributed Bragg reflector, such that a reflective change rate is substantially uniform as a compositional uniform as a

compositional gradation layer thickness increases. Applicants' claimed invention provides improved performance and yield.¹

In view of the indication of allowability for Claim 1, Applicants submit that independent Claims 6, 24, 38, 41, 44, 47, and 50, and all claims depending therefrom, are also in condition for allowance.

The present amendment is submitted in accordance with 37 C.F.R. § 1.116 which permits amendments placing the claims in better form for consideration on appeal after final rejection. Since the present amendment clarifies the claimed invention, it is respectively requested that 37 C.F.R. § 1.116 be liberally construed and the present amendment be entered.

Accordingly, in view of the present amendment and in light of the previous discussion, Applicants respectfully submit that the present application is in condition for allowance and respectfully request an early and favorable action to that effect.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.



Gregory J. Maier
Attorney of Record
Registration No. 25,599
Michael E. Monaco
Registration No. 52,041

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
GJM/MEM/kkn
I:\ATTY\MM\AMENDMENT\0557\220103.AM.DUE NOV. 28..DOC

¹ Specification, page 14, lines 1-20.